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硕士学位论文

新疆网管中心业务管理信息系统的设计与实现

Design and Implementation of Business
Management Information System for Xinjiang
Network Management Center

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摘 要

随着信息技术不断进步以及计算机、网络的普及，电子政务已经深入应用到各级政府机关单位。因此，在政府的各级单位，都有负责政府网站、系统运营的网络管理中心，如何统筹各级网管中心的业务资源、提高网络管理的工作效率、降低管理成本，是政府机关亟待解决的问题。

基于上述背景，本文结合新疆维吾尔自治区网络管理中心的信息化建设现状，探讨网管中心业务管理信息系统的开发方案。论文工作内容包括：

深入调研新疆各级网络管理中心业务现状，开展系统的需求分析和业务流程分析工作，形成规范的系统需求规格指标。然后在系统分析的基础上，综合运用软件工程的相关方法和原理，给出了区级网络管理中心的建设方案。该方案提出采用ASP.NET技术，结合SQL Server数据库，在Visual Studio平台上，开发基于B/S三层架构的网管中心业务管理系统。该系统实现了业务申请、资产管理、知识库管理、运行监控、新闻发布、网上调查、决策支持等功能模块。其中，业务申请实现各级网管在线向上级提交业务申请，上级能在线进行审批，从而改变了过去通过邮件、电话等方式进行业务处理的工作方式；通过资产管理，可以完成对各级网络管理中心现有资产设备的维护，并能对设备的报修和处理进行登记；对网管中心的各类设备故障维护过程进行记录，形成丰富强大的知识库，并对知识库进行维护，从而为其它类似故障的快速解决提供了必要的条件；运行监控、网上调查可以完成下级网络运行数据向上级汇报，通过决策支持功能，对下级各网管中心的运行数据进行统计，为领导的决策提供有价值的数据；新闻发布完成各级网管中心的信息动态发布，实现信息的快速共享。系统的开发经过了功能测试和性能测试，验证了系统的各项功能指标达到了需求规格。

目前，按方案开发的新疆网管中心业务管理信息系统，已在新疆网络管理中心上线运行。实际运行结果表明，该系统的开发，对于促进各级网管中心资源的有效利用、提高网络管理工作的效率、保障各级机关单位网络的正常运转，有着现实的意义。

关键词：网管中心；ASP.NET技术；三层架构

Abstract

With the development of information technology and the popularity of computer and network, the electronic government system has applied in all levels of governments unit. So, there are some network management centers at all levels unit of the government, which are responsible for the government web site and the operation of the system. It is an important issue that how to make an overall plan business resources at all levels in the center of network management, and how to improve the efficiency of network management, and how to reduce the management cost.

The dissertation combined the situation of information construction in Xinjiang Uygur Autonomous Region network management center, and discussed the plan of network management information system. This main content of the dissertation contains:

Requirements specification was made by researching business status of network management center in Xinxiang, and carried out the requirements analysis of the system and business process analysis work, the development of standard system specification index. And then based on analysis of the system, comprehensive using the software engineering related method and principle, and gave the provincial network management center construction plan. The scheme is put forward by using of the asp.net technology, combined with SQL Server database in Visual Studio platform, the development based on B/S structure of the three layer network management center business management system. In this system, there are several modules: business application, asset management, knowledge management, operation monitoring, press conference, online surveys, and decision support. Among them, the business application could help network management at all levels to superior submitted online business application, the superior to online examination and approval, so as to completely change the past

through the mail, telephone and other means to business processing way of working; Through the asset management, users can complete network management center of all existing assets equipment maintenance, and can effectively process equipment registration and record the equipment maintenance information which help to construct and maintenance rich powerful knowledge base. By using the knowledge base, other similar fault could be solved quickly; Operation monitoring, online surveys can finish junior network operation to report data, through the decision support function of lower the operation of the network management center for statistical data, as the leader of the decision provides valuable data; News release at various levels of network management center to complete information dynamic release, realize the rapid sharing information. The results of function and performance test show that each function indexes of the system have reached the requirements specification.

At present, business management information system for Xinjiang network management center was developed according to the plan, and has been set up and put into online operation in the Xinjiang network management center. The operational results show that it has practical significance in promoting the effective utilization of resources for network management center, and improving the network management efficiency, security agency units at all levels of the normal operation of the network.

Keywords: Network Management Center; Asp.net Technology; Three-layer Architecture

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